

REMARKS

Favorable reconsideration and allowance of the present application is respectfully requested.

Applicant initially wishes to thank Examiner Torres for the courtesy and assistance she provided during the recent telephonic interview on May 18, 2004.

Currently, claims 21-40, including independent claims 21 and 37, are pending in the present application. For example, as discussed in the recent interview, independent claim 21 has been amended to more clearly define what is meant by the terms "first meltable layer", "second meltable layer", and the "release coating." That is, claim 21 now recites that the "first layer" and "second layer" are melt-flowable at a transfer temperature. Likewise, claim 21 recites that the "release layer" has essentially no tack at the transfer temperature, i.e., it does not stick to an overlying layer to an extent sufficient to adversely affect the quality of the transferred image. (Appl. p. 9). Claim 21 also provides that the first layer overlies a base substrate, the second layer overlies the first layer, and that the release layer separates the first and second layers. Based on this particular construction, the first layer will not transfer, but instead can provide a "penetrating effect" that forces the second layer into the interstices of a receiving substrate (e.g., T-shirt). (Appl. p. 5).

In the Office Action, original independent claim 1 was rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,410,200 to Williams, et al. Williams, et al. is directed to a transfer material that includes a substrate as a support. (Cols. 4-6). A barrier layer is an optional first coating on the substrate. The barrier layer may assist in releasing layers, but nevertheless remains on the support after transfer. (Col.

6, ll. 16-34). For example, the barrier layer may be composed of a thermoplastic polymer having “essentially no tack at transfer temperatures (e.g., 177°C).” (Col. 6, ll. 43-45). A release layer is formed on the substrate between the optional barrier layer and an optional image-receiving layer. (Col. 8, ll. 49-56). During transfer, the release layer undergoes a “solid to solution phase transition resulting, upon contact with a receptor, in a transfer of the release layer and any optional layers to the receptor.” (Col. 9, ll. 16-20). One example of the transfer sheet of Williams, et al. is shown in Fig. 1. As illustrated, the transfer sheet 20 includes a substrate 21. A barrier layer 22 is coated on the top surface of the substrate 21, and a release layer 23 is then coated onto the barrier layer 22. Finally, an image-receiving layer 24 is coated on top of the release layer 23. (Col. 19, ll. 60-67). An antistatic layer 25 may also be applied to the non-coated side of the sheet to help eliminate copier or printer jamming. (Col. 20, ll. 11-16).

As discussed in the recent telephone interview, the claimed heat transfer material is vastly different than that described by Williams, et al. For example, Williams, et al. refers to a construction that includes a “barrier layer” overlying a substrate and a “release layer” overlying the “barrier layer.” To better understand how this construction differs from the claimed heat transfer material, it is first helpful to understand the difference between the “release layer” of Williams, et al. and the claimed “release layer.” The “release layer” of Williams, et al. must adhere to the image-receiving layer. (Col. 8, ll. 50-61). The reason is that, during transfer, the release layer melts and transfers to the sheet with the image-receiving layers. (Col. 9, ll. 16-33). On the other hand, the “release layer” of the present claims has “essentially no tack at transfer temperatures”, and thus only facilitates the release of other layers during heat transfer. Clearly,

although the same terminology is used, Applicant uses the term “release layer” to refer a completely different type of layer than Williams, et al.

In fact, the only layer of Williams, et al. that could even conceivably correspond to the “release layer” of the present claims is the “barrier layer.” For example, Williams, et al. indicates that the “barrier layer” does not transfer and contains a thermoplastic polymer having essentially no tack at transfer temperatures. Even assuming, however, that the “barrier layer” of Williams, et al. corresponds to the “release layer” of the present claims, the resulting construction of the heat transfer material is vastly different. Specifically, the heat transfer material of Williams, et al. simply does not contain a “first layer” between the substrate and the “barrier layer.” As indicated above, the “first layer” of the present claims can soften at transfer temperatures, and thus force the “second layer” into the interstices of a receiving substrate (e.g., T-shirt). Accordingly, for at least the reasons set forth above, Applicant respectfully submits that the present claims patentably define over Williams, et al.


In summary, Applicant respectfully submits that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Torres is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this response.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

• Appl. No. 09/614,829
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Respectfully requested,

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